



The Solutions Network

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Rochester, New York

# Vibration Analysis & Laser Alignment

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# Vibration Analysis

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- ❖ Reduced Maintenance Cost
- ❖ Schedule Equipment Repairs
- ❖ Extend Equipment Life
- ❖ Reduce Structural Damage
- ❖ Real Time Data

August 8-11, 2004

[www.energy2004.ee.doe.gov](http://www.energy2004.ee.doe.gov)



# Vibration Analysis Applications

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- ❖ Predictive Maintenance
- ❖ Balance Rotating Equipment
- ❖ Trouble Shoot
- ❖ Online Continuous Monitoring
- ❖ Mode Shape Analysis
- ❖ Phase Analysis
- ❖ Ultra Sonic Input

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# Precision Alignment

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- ❖ Reduces:
  - Maintenance Cost
  - Operational Cost
  - Vibration
  - Bearing Failures
  - Seal Failures
  - Down Time



# Laser Applications

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- ❖ Vertical Hydro Turbines
- ❖ Turbine Diaphragm Centering
- ❖ Bearing Bores
- ❖ Shaft to Shaft
- ❖ Belts
- ❖ Chain Sprockets

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# Shaft Alignment Demo

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- ❖ Pre-alignment (Critical)
- ❖ Measure
- ❖ Evaluate
- ❖ Correct
- ❖ Re-measure and Document

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# Shaft Alignment Demo

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❖ Questions/Comments

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